What is claimed is:

 A method for compressing a stream arriving at a compressor comprising: acquiring a pattern at the compressor:

making sure a decompressor is synchronized with the compressor according to the pattern; and

sending a compressed packet according to the pattern.

- 2. The method for compressing of claim 1 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said step of making sure comprising: sending the pattern.
- The method of claim 2 wherein the step of making sure further comprises receiving an indication having a marker bit set.
- 4. The method of claim 1 wherein the step of making sure further comprises: receiving a first ack; and receiving a second ack.
- 5. The method of claim 1 wherein the step of making sure further comprises pattern detecting at least two packets.
- The method of claim 5 wherein the step of pattern detecting comprises acknowledging the at least two packets.
- 7. The method of claim 6 wherein the at least two packets comprise a first packet and a second packet and the steps prior to pattern detecting comprise:

receiving a first acknowledgement having at least the first packet; and receiving a second acknowledgement having at least the second packet.

8. The method of claim 1 wherein the stream comprises a first packet having a first sequence number and a first M bit, said stream comprising a second

packet having a second sequence number and a second M bit, the method further comprises:

acquiring the first packet and the second packet; and detecting that the second sequence number is one more than the first sequence number and that the first mbit and the second mbit are set.

- 9. The method of claim 8 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said step of making sure comprising: sending the pattern.
- 10. The method of claim 1 wherein the media stream further comprises a first packet having a first sequence number and a first M bit, said stream comprising a second packet having a second sequence number, a second TS and a second M bit, a third packet said third packet having a third TS and a third M bit, the method further comprises:
- storing the first packet and the second packet and the third packet detecting that the second sequence number is one more than the first sequence number;
- detecting that the third TS is the same as the second TS and detecting that the third M bit is the same as the first M bit.
- 11. The method of claim 10 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said step of making sure comprising: sending the pattern.
- 12. The method for compressing of claim 1 comprising: acquiring the pattern at the decompressor.

- 13.The method for compressing of claim 2 wherein the step of sending the pattern further comprises explicitly sending the pattern from the compressor to the decompressor.
- 14 The method for compressing of claim 2 wherein the stream is an RTP packet stream and the pattern comprises a TS function expressed as a staircase function of the packet SN, the staircase function having at least one staircase step, and a M-bit function, said step of making sure comprising: sending the pattern.
- 15. The method for compressing of claim 14 wherein the stream is an RTP packet stream and the pattern comprises a TS function expressed as a staircase function of the packet SN, the staircase function having at least one staircase step, and a M-bit function wherein the M-bit is set for a last packet of the staircase step, said step of making sure comprising: sending the pattern.
- 16. The method for compressing of claim 15 wherein the M-bit is set only for the last packet of the staircase step.
- 17. The method of claim 16 wherein the step of making sure further comprises receiving an indication having a marker bit set.
- 18. The method of claim 16 wherein the step of making sure further comprises: receiving a first ack; and receiving a second ack.
- 19. The method of claim 16 wherein the step of making sure further comprises pattern detecting at least two packets.
- 20. The method of claim 19 wherein the step of pattern detecting comprises acknowledging the at least two packets.

21. The method of claim 19 wherein the at least two packets comprise a first packet and a second packet and the steps prior to pattern detecting comprise:

receiving a first acknowledgement having at least the first packet; and receiving a second acknowledgement having at least the second packet.

22. The method of claim 16 wherein the RTP packet stream comprises a first packet having a first sequence number and a first M bit, said stream comprising a second packet having a second sequence number and a second M bit, the method further comprises: acquiring the first packet and the second packet; and detecting that the second sequence number is one more than the first sequence number and that the first mbit and the second mbit are set.

23. The method of claim 22 wherein the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said step of making sure comprising:

sending the pattern .

- 24. The method for compressing of claim 16 wherein the step of sending the pattern further comprises explicitly sending the pattern from the compressor to the decompressor.
- 25. A compressor for compressing a stream comprising:
 a means for acquiring a pattern at the compressor:
 a means for making sure a decompressor is synchronized with the compressor according to the pattern; and
 a means for sending a compressed packet according to the pattern.
- 26. The compressor for compressing of claim 25 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said means for making sure comprising: a means for sending the pattern.

- 27. The compressor of claim 26 wherein the means for making sure further comprises a means for receiving an indication having a marker bit set.
- 28. The compressor of claim 25 wherein the means for making sure further comprises:
- a means for receiving a first ack; and receiving a second ack.
- 29. The compressor of claim 25 wherein the means for making sure further comprises a means for pattern detecting at least two packets.
- 30. The compressor of claim 29 wherein the means for pattern detecting comprises a means for acknowledging the at least two packets.
- 31. The compressor of claim 30 wherein the at least two packets comprise a first packet and a second packet the compressor further comprises:
- a means for receiving a first acknowledgement having at least the first packet; and
- a means for receiving a second acknowledgement having at least the second packet.
- 32. The compressor of claim 25 wherein the stream comprises a first packet having a first sequence number and a first M bit, said stream comprising a second packet having a second sequence number and a second M bit, the compressor further comprises:
- a means for acquiring the first packet and the second packet; and a means for detecting that the second sequence number is one more than the first sequence number and that the first mbit and the second mbit are set.

- 33. The compressor of claim 32 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said means for making sure comprising: sending the pattern.
- 34. The compressor of claim 25 wherein the media stream further comprises a first packet having a first sequence number and a first M bit, said stream comprising a second packet having a second sequence number, a second TS and a second M bit, a third packet said third packet having a third TS and a third M bit, the compressor further comprises:
- a means for storing the first packet and the second packet and the third packet
- a means for detecting that the second sequence number is one more than the first sequence number;
- a means for detecting that the third TS is the same as the second TS and a means for detecting that the third M bit is the same as the first M bit.
- 35. The compressor of claim 34 wherein the stream is an RTP packet stream and the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said means for making sure comprising: a means for sending the pattern.
- 36. The compressor for compressing of claim 25 comprising: a means for acquiring the pattern at the decompressor.
- 37.The compressor for compressing of claim 26 wherein the means for sending the pattern further comprises a means for explicitly sending the pattern from the compressor to the decompressor.
- 38. The compressor for compressing of claim 25 wherein the stream is an RTP packet stream and the pattern comprises a TS function expressed as a staircase function of the packet SN, the staircase function having at least one

staircase step, and a M-bit function, said a means for making sure comprising:

a means for sending the pattern.

- 39. The compressor for compressing of claim 38 wherein the stream is an RTP packet stream and the pattern comprises a TS function expressed as a staircase function of the packet SN, the staircase function having at least one staircase step, and a M-bit function wherein the M-bit is set for a last packet of the staircase step, said a means for making sure comprising: a means for sending the pattern.
- 40. The compressor for compressing of claim 39 wherein the M-bit is set only for the last packet of the staircase step.
- 41. The compressor of claim 40 wherein the means for making sure further comprises a means for receiving an indication having a marker bit set.
- 42. The compressor of claim 40 wherein the a means for making sure further comprises:
- a means for receiving a first ack; and
- a means for receiving a second ack.
- 43. The compressor of claim 40 wherein the means for making sure further comprises a means for pattern detecting at least two packets.
- 44. The compressor of claim 43 wherein the means for pattern detecting comprises a means for acknowledging the at least two packets.
- 45. The compressor of claim 43 wherein the at least two packets comprise a first packet and a second packet further comprise:
- a means for receiving a first acknowledgement having at least the first packet; and
- a means for receiving a second acknowledgement having at least the second packet.
- 46. The compressor of claim 40 wherein the RTP packet stream comprises a first packet having a first sequence number and a first M bit, said stream comprising a second packet having a second sequence number and a second M bit, the compressor further comprises:
- a means for acquiring the first packet and the second packet; and

a means for detecting that the second sequence number is one more than the first sequence number and that the first mbit and the second mbit are set.

- 47. The compressor of claim 46 wherein the pattern comprises a TS function, a M-bit function, a quotient and a TS increment, said means for making sure comprising:
- a means for sending the pattern.
- 48. The compressor for compressing of claim 40 wherein the means for sending the pattern further comprises a means for explicitly sending the pattern from the compressor to the decompressor.